

## LESSON

## 8.2

NAME \_\_\_\_\_

DATE \_\_\_\_\_

**Practice B**

For use with pages 456-461

Evaluate the exponential expression. Write your answer as a fraction in simplest form.

1.  $5^{-3}$

2.  $\left(\frac{1}{3}\right)^{-1}$

3.  $6(6^{-4})$

4.  $-2^0 \cdot \frac{1}{4^{-2}}$

5.  $3^5 \cdot 3^{-7}$

6.  $7^3 \cdot 0^{-2}$

7.  $10^{-2} \cdot 10^2$

8.  $-2 \cdot (-2)^{-5}$

9.  $(8^2)^{-1}$

10.  $9^{-2} \cdot 12^0$

11.  $(-4^{-3})^{-1}$

12.  $1 \cdot 1^{-8}$

Rewrite the expression with positive exponents.

13.  $4x^{-2}$

14.  $\frac{1}{3x^{-4}}$

15.  $x^3y^{-6}$

16.  $7x^{-5}y^{-1}$

17.  $\frac{1}{11x^{-2}y^{-7}}$

18.  $(-12)^0y^{-2}$

19.  $(9x)^{-4}$

20.  $(2x^3y^{-8})^{-3}$

21.  $(2^{-1}x^{-10})^7$

22.  $\frac{15}{5y^{-3}}$

23.  $\frac{1}{(8x^2)^{-3}}$

24.  $\left(\frac{-12x^{-5}}{4x^{-5}}\right)^{-4}$

Evaluate the exponential expression. Write your answer as a fraction in simplest form.

1.  $12^{-2}$

2.  $\left(\frac{2}{5}\right)^{-3}$

3.  $8^5(8^{-7})$

4.  $(-10)^0 \cdot \frac{1}{3^{-3}}$

5.  $6^{13} \cdot 6^{-10}$

6.  $11^{-2} \cdot 0^{-6}$

7.  $21^{-8} \cdot 21^8$

8.  $-9 \cdot (-9)^{-3}$

9.  $(5^3)^{-1}$

10.  $10^{-3} \cdot 20^0$

11.  $(-3^{-1})^{-5}$

12.  $15^{-5} \cdot 0^9$

Rewrite the expression with positive exponents.

13.  $14x^{-5}$

14.  $\frac{4}{5^{-2}x^{-7}}$

15.  $x^{-10}y^{21}$

16.  $20x^{-8}y^{-8}$

17.  $\frac{6}{18x^{-3}y^9}$

18.  $(-11)^{-2}y^0$

19.  $(7^{-2}x^8)^{-2}$

20.  $(4x^{-4}y^{-12})^{-5}$

21.  $-\frac{48x^{-6}y^8}{52x^9y^2}$

22.  $\frac{(8x^3)^{-2}}{2^{-4}x^{-10}}$

23.  $\frac{x^{-4}}{(12y^2)^{-2}}$

24.  $\left(\frac{-10x^{-15}}{x^{-15}}\right)^{-5}$